updating a set of parameters of a programmable design cell by relating corresponding local variables of a local file [for] corresponding to the programmable design cell to corresponding global variables of the global file.

REMARKS

Applicant has carefully reviewed and considered the Office Action mailed on January 31, 2001, and the references cited therewith.

Applicant has proposed that claims 1, 2, 9, 15 and 22 be amended, no claims are canceled or proposed to be added; as a result, claims 1-25 are now pending in this application.

§102 Rejection of the Claims

Claims 1-21 were rejected under 35 U.S.C. § 102(e) as being anticipated by Heile et al. (U.S Patent No. 5,983,277).

Applicant notes that the cited Heile et al patent issued November 9, 1999 and is cited under 35 U.S.C. § 102(e). Applicant believes that claims 1-21 are not anticipated by what is shown in the cited Heile et al '277 patent. Applicant reserves the right, if necessary, to provide evidence of invention of the claimed invention antedating the filing date of the cited Heile et al. '277 patent.

The cited Heile et al '277 patent relates to the use of predesigned layout block elements in a larger design through a file definable hierarchy. In Heile, there is already a programmable "design cell" which is available to the designer for placing multiple instances of it in a circuit design while varying properties of each cell instance of it through a file association.

The invention claimed in claims 1, 9 and 15 when amended as Applicant has proposed and the claims dependent thereon does not deal with high level circuit design but with creating the layout block elements themselves in a manner that is more geometrical than design functional.

Applicant has proposed amendments to claims 1, 9, 15 and 22 to highlight this distinction. As is clear from the claims, hierarchical semiconductor structures in the present application are "drawn" as a combination of element blocks of various shapes. Each shape has a given set of dimensions and relationship to other shapes in the design. Programmable design

cells are themselves created from abstract geometric shapes. The abstract geometric shapes are programmable as to how they relate to each other, the layers the shapes are on and the sizes of the shapes. The programmability of the shapes can be used to create a design cell which is itself programmable.

Applicant's invention, as set forth in the claims amended as proposed, has a hierarchy that translates from the layout realm to the circuit realm by establishing programmable layout objects that are used to create programmable design objects. The cited Heile patent does not show a system for creating the programmable design cells.

Applicant respectfully submits that the Office Action does not make out a *prima facie* case of anticipation because the cited Heile patent does not teach each and every claim element. Heile does not show programmable design cells which relate to the global variables in the manner shown in the claims, when amended as proposed. Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration. *In re Dillon* 919 F.2d 688, 16 USPQ2d 1897, 1908 (Fed. Cir. 1990) (en banc), cert. denied, 500 U.S. 904 (1991). Entry of the proposed amendments, and reconsideration and allowance of the amended claims is respectfully requested.

Claims 22-25 were rejected under 35 U.S.C. § 102(e) as being anticipated by Van Huben et al. (U.S Patent No. 6,035,297).

Applicant notes that the cited Van Huben et al patent issued March 7, 2000 and is cited under 35 U.S.C.§102(e). Applicant believes that claims 22-25 are not anticipated by what is shown in the cited van Huben et al patent. In the response filed August 11, 2000, Applicant reserved the right to provide evidence of invention of the claimed invention antedating the filing date of van Huben et al. Applicant continues to reserve that right, if that should prove to be necessary, to provide evidence of invention of the claimed invention antedating the filing date of van Huben et al.

The cited Van Huben et al patent relates to IBM's data management system for file and database management which apparently includes a design control system for use in connection with the design of integrated circuits having many parts which need to be developed in a concurrent engineering environment with information provided by diverse users. Applicant notes that while there may be aspects of Van Huben which appear to have some superficial

AMENDMENT & RESPONSE UNDER 37 C.F.R. § 1.116 - EXPEDITED PROCEDURE   **Page 5**
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similarity with the aspects of the disclosure of Applicant's invention, Applicant's claims 22-25, when amended as proposed, specifically relate to a hierarchical cell population method and system that is neither disclosed nor suggested in the cited Van Huben et al patent. Although Van Huben may have a global file, local files and templates containing cells, the interrelation of the elements of claims 22-25 to provide programmable design cells which relate to the global variables in the manner shown in the claims, when amended as proposed. Entry of the proposed amendments to claim 22 and reconsideration and allowance of claims 22-25 is respectfully requested.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 373-6970 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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Date _May 31, 2001_   By _____
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